Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte J. RICHARD AYLWARD

_____

Appeal No. 2003-0315
Application 09/122,988

_____

HEARD: August 21, 2003

_____

Before BARRETT, FLEMING, and DIXON, **Administrative Patent Judges.**

FLEMING, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claim 9. Claims 1 through 8, 10 and 11 are allowed.

Invention

The invention relates to surround sound decoding and more particularly concerns a novel method for down-mixing a variable number of channels into a conventional stereophonic left and right channel pair, which when reproduced as a stereophonic pair,

preserves the directional information of the originating left and right channel surround signals. See page 1 of Appellant's specification. Figure 1 is a block diagram illustrating the logical arrangement of an embodiment of the invention having matrix encode with split surround channels and first-order head shading filter. See page 3 of Appellant's specification. Figure 1 shows a left surround signal (Ls) and a right surround signal (Rs) being summed by summer 21 to provide a monophonic surround signal. The monophonic surround signal is filtered to provide a filtered monophonic signal having properties related to the diffraction pattern around the head of the listener (output signal from differential amplifier 24 shown in figure 1). See page 4 of Appellant's specification. Figure 1 shows the filtered monophonic signal being multiplied by multipliers 31 and 32 with a time varying coefficient signal relating to the surround signals. See page 5 of Appellant's specification.

Claim 9 is reproduced as follows:

9. A method of downmixing a plurality of signals including at least a left surround signal, a right surround signal, a left front signal and a right front signal into a stereophonic pair that is a left transmitted signal and a right transmitted signal including,

summing the left surround and right surround signals to provide a monophonic surround signal,

filtering the monophonic surround signal to provide a filtered monophonic signal having properties related to the diffraction pattern around the head of a listener, and

multiplying the filtered monophonic surround signal with a time varying coefficient signal related to the surround signals.

Reference

The reference relied on by the Examiner is as follows:

Iida et al. (Iida) 5,579,396 Nov. 26, 1996

Rejection at Issue

Claim 9 stands rejected under 35 U.S.C. § 102 as being anticipated by Iida.

Throughout the opinion, we will refer to the briefs[1] and answer for the respective details thereof.

OPINION

With full consideration being given to the subject matter on appeal, the Examiner's rejection and the arguments of Appellant and the Examiner for the reasons stated **infra**, we reverse the Examiner's rejection of claim 9 under 35 U.S.C. § 102.

[1] Appellant filed an appeal brief on May 22, 2002. Appellant filed a reply brief on August 28, 2002. The Examiner mailed an office communication on September 19, 2002, stating that the reply brief has been entered.

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. **See In re King**, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and **Lindemann Machinenfabrik GMBH v. American Hoist & Derrick Co.**, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Appellant argues that Iida fails to teach "multiplying the filtered monophonic surround signal with a time varying coefficient signal related to the surround signals" as recited in Appellant's claim 9. See pages 5 through 7 of Appellant's brief.

In response, the Examiner states that figure 6 clearly shows that processors 14 and 15 control the operation of filters 4 and 5 by applying time varying coefficients to the filters 4 and 5. See page 5 of the Examiner's answer.

Appellant argues that there is no disclosure that Iida's CPU 15 multiplies the filtered monophonic surround signal with a time varying coefficient signal related to the surround signals. See page 3 of Appellant's reply brief.

We note that Iida teaches that figure 6 shows a CPU 15 to conduct a specific processing. See column 10, lines 35 through 60. Iida teaches that the gain characteristics (relative amplitude characteristics) of the amplitude adjuster 12 is stored in memory 14 and applied to the adjusters 12 via CPU 15. See column 10, lines 60 through 62. Thus, we agree with the Examiner that CPU 15 controls the operation of filters 4 and 5 by applying coefficients to the filters. However, we fail to find that there is any disclosure that CPU 15 applies a time varying coefficient related to surround signals as recited in Appellant's claim.

In view of the foregoing, we have not sustained the Examiner's rejection of claim 9 under 35 U.S.C. § 102.

REVERSED

LEE E. BARRETT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	

MRF:pgg

Fish & Richardson
225 Franklin Street
Boston, MA 02110-2804